## REMARKS

Claims 1-13 are pending, of which claims 1, 5, 9, and 12 have been amended. It is respectfully submitted that the amendments to these claims raise no new issues requiring further searching or consideration by the Examiner and that therefore entry of this paper is proper.

Reconsideration of the application is respectfully requested for the following reasons for the following reasons.

In the Final Office Action, claims 1, 2, 4-6, 8, 9, and 11-13 were rejected under 35 U.S.C. §103 for being obvious over the Farber et al. (U.S. Patent No. 5,969,837, hereinafter Fabro) patent in view of the Okubo et al. (U.S. Patent No. 5,689,355, hereinafter Okubo) patent. This rejection is respectfully traversed for the following reasons.

Claim 1 recites a gain control method for a fiberoptic repeating system. The method includes mixing from a master repeater a modulated modem signal having a prescribed level with an RF signal, and then transmitting the mixed signal through an optical cable. In a slave repeater, the modulated modem signal is detected and a comparison is performed to adjust the gain of an amplifier for the RF signal in the slave repeater. In addition to these features, claim 1 recites that "the modulated modem signal is generated from the RF signal." The cited references do not teach or suggest these features.

The Farber patent discloses a communication system which includes a base unit and a remote unit connected by a fiberoptic cable. The base unit converts an RF signal into an optical

signal, and a remote unit converts the optical signal back into an RF signal. In order to detect whether communications between the base unit and the remote unit have been disrupted, the base unit transmits its optical signals with a pilot tone signal of a predetermined frequency, e.g., 10 kilohertz. The pilot signal is also used as a reference value for controlling gain in the base unit.

The Farber patent, however, does not teach or suggest mixing a modem signal with an RF signal and then transmitting that mixed signal to a slave repeater for purposes of performing amplifier gain control. More specifically, the Farber patent does not teach or suggest "mixing from a master repeater a locally generated modulated modem signal of a prescribed level with an RF signal and transmitting the mixed signal through an optical cable," and then performing the comparing and adjusting steps based on the modem signal and the mixed signal.

To make up for these deficiencies, the Okubo patent was cited. The Okubo patent discloses a digital repeater. The repeater includes a master device 3 and a slave device 4. In operation, a control circuit 45 in the slave device detects a current level of an opto-electronic transducer 42, which is used to convert a data signal transmitted from the master device into an electric signal. The current level is compared to a predetermined reference value, and then control data is combined with received data and transmitted as a mixed signal to the master device. See column 7, lines 22-52.

However, the Okubo patent does not teach or suggest that the control data combined with the data received by the slave device is "generated independently from the RF signal." More specifically, the Okubo patent discloses that data received by the slave device is combined with modulated control data output from control circuit 45. The combined signal is then transmitted to the master device which adjusts the gain of its amplifier circuits used to amplify the data in the mixed signal. The amplified data is then transmitted as an RF signal.

The Okubo patent makes clear that the modulated gain control data is derived from a comparison between the current level detected from its O/E transducer and a pre-stored reference value. The O/E transducer converts a received RF signal into an optical signal. Consequently, it is clear that the current level of the O/E transducer corresponds to a current level of the received RF signal. Because this current level is used to generate the modulated control data for setting the gain in the master device amplifiers, the modulated control data transmitted from the slave device to the master device is based on the RF signal, i.e., the modulated control data of the Okubo system is not "generated independently from the RF signal' as recited in claim 1, but rather is directly based on the RF signal. Generating an independent modulated modem signal for purposes of performing gain control is advantageous for a number of reasons, some of which are enumerated in the specification. Applicants note, however, that achieving these advantages is not necessary and thus should not be held to be limiting on the scope of the claims presently pending in this application.

A Farber-Okubo combination, thus, even if properly combined would fail to included at least the following features recited in claim 1; "wherein the modulated modem signal is generated independently from the RF signal." Absence of teaching or suggestion of these features, it is respectfully submitted that a Farber-Okubo combination cannot render claim 1 or any of dependent claims obvious.

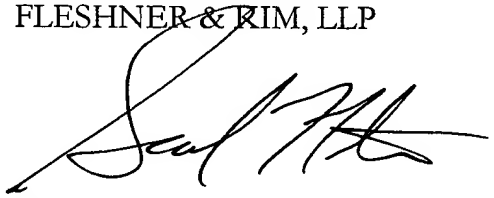
Claims 5, 9, and 12 have been amended to recited features similar to those which patentably distinguish claim 1 from the cited references. Accordingly, it is respectfully submitted that these claims and their dependent claims are non-obvious and thus patentable over a Faber-Okubo combination.

## CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, **Samuel W. Ntiros**, at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
FLESHNER & KIM, LLP



Daniel Y.J. Kim
Registration No. 36,186

Samuel W. Ntiros
Registration No. 39,318

P.O. Box 221200
Chantilly, Virginia 20153-1200
703 766-3701 DAK/SWN:cre:par
**Date: March 25, 2004**

**Please direct all correspondence to Customer Number 34610**